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UNITHERM Food Systems, Inc.										Date: 2/7/97
Cooking Trial Data										
Test #	Belt Speed	Cook Time	Product: Turkey Breast		Start Weight	Cooked Weight	Yield	Supplied By: BOARS HEAD	Internal Temp. F.	Remark
			Temperatures C.							
			Zone 1	Zone 2						
#1	48	10 MIN	550	650						30% MES. POLY
#2	11	11	11	11						30% MES 100% EXCELLENCE
#3										50% MES POLY
#4										mes poly
#5										50/50% SKIN ON
#6										EX TEST SMOKE
NOTES										
#1										
#2										
#3										
#4										
#5										
#6										

PTO-004100

CONFIDENTIAL-ATTORNEY ONLY

U-8198

UNITHERM Food Systems, Inc.										Date: 2/7/97
Cooking Trial Data										
Test #	Belt Speed	Cook Time	Product: TURKEY BREAST		Supplied By: PURDUE		Yield	Internal Temp. F.	Remarks	
			Temperatures C.		Start Weight	Cooked Weight				
			Zone 1	Zone 2						
1, 2, 3	26	18 MIN	550	650			TOAST		3 - 1 OF EA. OVEN ROAST	
4	80	6	550	650					30% MAICOSE OVEN ROAST	
5	90	5.5	550	650					30% MAICOSE 5.5 MIN	
6	103	5	550	650					30% MAICOSE 5.0	
ROUND PORK	103	5	550	650				2.6%	30% SMOKE 24P	
PLAIN	80	GOOD	4.5 MIN					2.2	30% 24P	
HEART	9	GOOD							30% 24P	
NOTES										
#1, 2, 3 - TOAST - (BURNED TOAST)										
#4 - LEAKS OK - MAYBE A BIT DARK										
#5 - GOOD										
#6 - GOOD										
#7 - REAL GOOD										
#8 - GOOD										
#9 - GOOD										
#10 - LIGHT - OK 30% 24P 5 MIN										
#11 - 50, 50. 45 SEC. DIP 24P										
#12 - 30% MAICOSE										
#13 - 30 MGS POLY										
#14 - 30% MAICOSE 30% 24P 5 MIN										

ONE OF EACH

HEART

HEART

HEART

ROUND PORK

PLAIN

ROUND

HEART

50% SMOKE

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U-04859

UNITHERM Food Systems, Inc.										Date: 2/7/97
Cooking Trial Data										
Test #	Belt Speed	Cook Time	Product: TURKEY BREASTS		Supplied By: PURDUE		Internal Temp. F.	Yield	Remark	
			Temperatures C.		Start Weight	Cooked Weight				
			Zone 1	Zone 2						
#4	80.00	6 MIN	550	650				-2.0%	HEART SHAPED OVEN ROAST	
#5	90.00	5.5 MIN	550	650				-2.1%	HEART SHAPED 30% MAILLOSE	
#6	103.00	5 MIN	550	650				-1.9%	HEART SHAPED 30% MAILLOSE	
#7	103.00	5 MIN	550	650				-2.6%	PLAIN ROUND PACK 30% CHARSOUL SELECT 24P	
#8	108.00	4.5 MIN	550	650				-2.2%	PLAIN ROUND PACK 30% CHARSOUL SELECT 24P	
#9	108.00	4.5 MIN	550	650				?	HEART SHAPED 30% CHARSOUL SELECT 24P	

NOTES

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U-04858

PTO-004102

UNITHERM Food Systems, Inc.									
Cooking Trial Data									
			Product: TURKEY BREASTS		Supplied By: PURDUE				
Test #	Belt Speed	Cook Time	Temperatures C.		Start Weight	Cooked Weight	Yield	Internal Temp. F.	Remark
			Zone 1	Zone 2					
#10	103.00	5 MIN	550	650			-3.5%		IMPERIAL PACK
#11	2 RUNS 103.00	10 MIN	550	650			3.25%		30% CHARSOUL SELECT 24P IMPERIAL PACK
#12	103.00	5 MIN	550	650			?		30% CHARSOUL SELECT 24P IMPERIAL
#13	103.00	5 MIN	550	650			-3.0%		30% MALCOSE PLAIN ROUND
#14	2 RUNS 103.00	10 MIN	550	650			-3.7%		30% OKLAHOMA SELECT PLAIN ROUND
#15	103.00	5 MIN	550	650			-3.6%		30% HICKORY PLAIN ROUND
NOTES 16 2 RUNS 103.00			550	650			-4.2%		30% MESQUITE POLY HICKORY
#1									
#2									
#3									
#4									
#5									
#6									

U-05792

PTO-004103

#4 6 min 2.2 loss OVEN RAST

#7 ROUND
PLAN 5m 2.6 loss 24P 30%

#5 5.5 min 2.1 loss 30 MAILOSE

#8 PLAIN
ROUND 4.5 2.2 30 24P

#10 IMPERIAL 5 min 3.5 30 24P

#11 IMPERIAL 10 min 3.25 30 24P

#16 5 min 1.9 30 MAILOSE

#13 PLAIN
ROUND 5 MIN 3% 30 OKLA
smoke

#14 IMPERIAL 10 min 3.7 30% HICKORY

#15 PLAIN
ROUND 5 min. 3.6% 30 MES Poly

#16 PLAIN
ROUND 10 min 4.2 30% HICKORY

U-04860

PTO-004104

UNITHERM Food Systems, Inc.

Cooking Trial Data

Date: 2/7/57

Supplied By: PURDUE

Remarks

Test #	Belt Speed	Cook Time	Product: Turkey Breasts		Start Weight	Cooked Weight	Yield	Internal Temp. F.	Remarks
			Zone 1	Zone 2					
SAMPLE 1, 2, 3 OF EACH									
#4	26	18 min	550°	650°	45 SEC		BURNT		3 PER 10 T EA. OVEN BAST
#5	80	6 min	550°	650°	"				NATURAL CURED PASTE
#6	90	5 min	"	"	"	45 SEC. SWELL MAILLOSE NICE			30% MAILLOSE @ 5.5 min
#7	103	5 min	"	"	30 SEC. DIP	45 SEC. REAL NICE			30% MAILLOSE @ 5 min
#8	103	5 min	550°	650°	30 SEC	"	OK		30% MAILLOSE @ 5 min
#9	103	5 min	"	"	30 SEC	"	PERFECT		30% MAILLOSE @ 5 min
#10	103	5 min	"	"	30 SEC	"	"		30% MAILLOSE @ 5 min
#11	103	5 min	"	"	30 SEC	"	"		30% MAILLOSE @ 5 min
#12	103	5 min	"	"	30 SEC	"	"		30% MAILLOSE @ 5 min
#13	103	5 min	"	"	30 SEC	"	"		30% MAILLOSE @ 5 min
#14	103	5 min	"	"	30 SEC	"	"		30% MAILLOSE @ 5 min
#15	103	5 min	"	"	30 SEC	"	"		30% MAILLOSE @ 5 min
#16	103	5 min	"	"	30 SEC	"	"		30% MAILLOSE @ 5 min
#17	103	5 min	"	"	30 SEC	"	"		30% MAILLOSE @ 5 min
#18	103	5 min	"	"	30 SEC	"	"		30% MAILLOSE @ 5 min
#19	103	5 min	"	"	30 SEC	"	"		30% MAILLOSE @ 5 min
#20	103	5 min	"	"	30 SEC	"	"		30% MAILLOSE @ 5 min
#21	103	5 min	"	"	30 SEC	"	"		30% MAILLOSE @ 5 min
#22	103	5 min	"	"	30 SEC	"	"		30% MAILLOSE @ 5 min
#23	103	5 min	"	"	30 SEC	"	"		30% MAILLOSE @ 5 min
#24	103	5 min	"	"	30 SEC	"	"		30% MAILLOSE @ 5 min
#25	103	5 min	"	"	30 SEC	"	"		30% MAILLOSE @ 5 min
#26	103	5 min	"	"	30 SEC	"	"		30% MAILLOSE @ 5 min
#27	103	5 min	"	"	30 SEC	"	"		30% MAILLOSE @ 5 min
#28	103	5 min	"	"	30 SEC	"	"		30% MAILLOSE @ 5 min
#29	103	5 min	"	"	30 SEC	"	"		30% MAILLOSE @ 5 min
#30	103	5 min	"	"	30 SEC	"	"		30% MAILLOSE @ 5 min
#31	103	5 min	"	"	30 SEC	"	"		30% MAILLOSE @ 5 min
#32	103	5 min	"	"	30 SEC	"	"		30% MAILLOSE @ 5 min
#33	103	5 min	"	"	30 SEC	"	"		30% MAILLOSE @ 5 min
#34	103	5 min	"	"	30 SEC	"	"		30% MAILLOSE @ 5 min
#35	103	5 min	"	"	30 SEC	"	"		30% MAILLOSE @ 5 min
#36	103	5 min	"	"	30 SEC	"	"		30% MAILLOSE @ 5 min
#37	103	5 min	"	"	30 SEC	"	"		30% MAILLOSE @ 5 min
#38	103	5 min	"	"	30 SEC	"	"		30% MAILLOSE @ 5 min
#39	103	5 min	"	"	30 SEC	"	"		30% MAILLOSE @ 5 min
#40	103	5 min	"	"	30 SEC	"	"		30% MAILLOSE @ 5 min
#41	103	5 min	"	"	30 SEC	"	"		30% MAILLOSE @ 5 min
#42	103	5 min	"	"	30 SEC	"	"		30% MAILLOSE @ 5 min
#43	103	5 min	"	"	30 SEC	"	"		30% MAILLOSE @ 5 min
#44	103	5 min	"	"	30 SEC	"	"		30% MAILLOSE @ 5 min
#45	103	5 min	"	"	30 SEC	"	"		30% MAILLOSE @ 5 min
#46	103	5 min	"	"	30 SEC	"	"		30% MAILLOSE @ 5 min
#47	103	5 min	"	"	30 SEC	"	"		30% MAILLOSE @ 5 min
#48	103	5 min	"	"	30 SEC	"	"		30% MAILLOSE @ 5 min
#49	103	5 min	"	"	30 SEC	"	"		30% MAILLOSE @ 5 min
#50	103	5 min	"	"	30 SEC	"	"		30% MAILLOSE @ 5 min
#51	103	5 min	"	"	30 SEC	"	"		30% MAILLOSE @ 5 min
#52	103	5 min	"	"	30 SEC	"	"		30% MAILLOSE @ 5 min
#53	103	5 min	"	"	30 SEC	"	"		30% MAILLOSE @ 5 min
#54	103	5 min	"	"	30 SEC	"	"		30% MAILLOSE @ 5 min
#55	103	5 min	"	"	30 SEC	"	"		30% MAILLOSE @ 5 min
#56	103	5 min	"	"	30 SEC	"	"		30% MAILLOSE @ 5 min
#57	103	5 min	"	"	30 SEC	"	"		30% MAILLOSE @ 5 min
#58	103	5 min	"	"	30 SEC	"	"		30% MAILLOSE @ 5 min
#59	103	5 min	"	"	30 SEC	"	"		30% MAILLOSE @ 5 min
#60	103	5 min	"	"	30 SEC	"	"		30% MAILLOSE @ 5 min
#61	103	5 min	"	"	30 SEC	"	"		30% MAILLOSE @ 5 min
#62	103	5 min	"	"	30 SEC	"	"		30% MAILLOSE @ 5 min
#63	103	5 min	"	"	30 SEC	"	"		30% MAILLOSE @ 5 min
#64	103	5 min	"	"	30 SEC	"	"		30% MAILLOSE @ 5 min
#65	103	5 min	"	"	30 SEC	"	"		30% MAILLOSE @ 5 min
#66	103	5 min	"	"	30 SEC	"	"		30% MAILLOSE @ 5 min
#67	103	5 min	"	"	30 SEC	"	"		30% MAILLOSE @ 5 min
#68	103	5 min	"	"	30 SEC	"	"		30% MAILLOSE @ 5 min
#69	103	5 min	"	"	30 SEC	"	"		30% MAILLOSE @ 5 min
#70	103	5 min	"	"	30 SEC	"	"		30% MAILLOSE @ 5 min
#71	103	5 min	"	"	30 SEC	"	"		30% MAILLOSE @ 5 min
#72	103	5 min	"	"	30 SEC	"	"		30% MAILLOSE @ 5 min
#73	103	5 min	"	"	30 SEC	"	"		30% MAILLOSE @ 5 min
#74	103	5 min	"	"	30 SEC	"	"		30% MAILLOSE @ 5 min
#75	103	5 min	"	"	30 SEC	"	"		30% MAILLOSE @ 5 min
#76	103	5 min	"	"	30 SEC	"	"		30% MAILLOSE @ 5 min
#77	103	5 min	"	"	30 SEC	"	"		30% MAILLOSE @ 5 min
#78	103	5 min	"	"	30 SEC	"	"		30% MAILLOSE @ 5 min
#79	103	5 min	"	"	30 SEC	"	"		30% MAILLOSE @ 5 min
#80	103	5 min	"	"	30 SEC	"	"		30% MAILLOSE @ 5 min
#81	103	5 min	"	"	30 SEC	"	"		30% MAILLOSE @ 5 min
#82	103	5 min	"	"	30 SEC	"	"		30% MAILLOSE @ 5 min
#83	103	5 min	"	"	30 SEC	"	"		30% MAILLOSE @ 5 min
#84	103	5 min	"	"	30 SEC	"	"		30% MAILLOSE @ 5 min
#85	103	5 min	"	"	30 SEC	"	"		30% MAILLOSE @ 5 min
#86	103	5 min	"	"	30 SEC	"	"		30% MAILLOSE @ 5 min
#87	103	5 min	"	"	30 SEC	"	"		30% MAILLOSE @ 5 min
#88	103	5 min	"	"	30 SEC	"	"		30% MAILLOSE @ 5 min
#89	103	5 min	"	"	30 SEC	"	"		30% MAILLOSE @ 5 min
#90	103	5 min	"	"	30 SEC	"	"		30% MAILLOSE @ 5 min
#91	103	5 min	"	"	30 SEC	"	"		30% MAILLOSE @ 5 min
#92	103	5 min	"	"	30 SEC	"	"		30% MAILLOSE @ 5 min
#93	103	5 min	"	"	30 SEC	"	"		30% MAILLOSE @ 5 min
#94	103	5 min	"	"	30 SEC	"	"		30% MAILLOSE @ 5 min
#95	103	5 min	"	"	30 SEC	"	"		30% MAILLOSE @ 5 min
#96	103	5 min	"	"	30 SEC	"	"		30% MAILLOSE @ 5 min
#97	103	5 min	"	"	30 SEC	"	"		30% MAILLOSE @ 5 min
#98	103	5 min	"	"	30 SEC	"	"		30% MAILLOSE @ 5 min
#99	103	5 min	"	"	30 SEC	"	"		30% MAILLOSE @ 5 min
#100	103	5 min	"	"	30 SEC	"	"		30% MAILLOSE @ 5 min

BURNT - MUCH TOO SLOW! SPEED UP OVEN

#4 LOOKS OK, MAKE A BIT TOO DARK -

#5 BETTER

#6 GOOD

#7 GOOD

#8 REAL NICE!

#9 GOOD

#5

#6

U-03969

PTO-004105

NORBEST TURKEY BREAST

8.945 = 96%

#1 SKINLESS IN @ 9.275 OUT @ 8.89
SET @ 35 HZ - 8 MIN. 600 - 650
SMOKE @ 30% CHAR SOL SELECT 24 P. 95%

#2 SKINLESS @ 9.58 IN OUT @ 9.3 97%
SET 56 HZ - 5 MIN 600-650
30% 24P

SKIN ON IN 10.4 OUT 9.5 90%
40 HZ - 7 MIN 600-650
30% 24P
w Porac 9.96 = 95%

#2 SKIN ON 9.845 IN OUT 7.4 95%
46 HZ - 7 MIN 600 650
50% MAI 52

UNITHERM Food System , Inc.

Cooking Trial Data

Test #		Belt Speed	Cook Time	Product: TURKEY BREASTS		Start Weight	Cooked Weight	Yield	Internal Temp. F.	Supplied By: PURDUE	Remark
				Temperatures C.	Zone 2						
#10		103.00	5 MIN	550	650			-3.5%			IMPERIAL PACK
#11		2 RUNS 103.00	10 MIN	550	650			3.25%			30% CHARCOAL SELECT 24P IMPERIAL PACK
#12								?			30% CHARCOAL SELECT 24P IMPERIAL
#13		103.00	5 MIN	550	650						30% MAILLOSE PLAIN ROUND
#14		103.00	5 MIN	550	650			-3.0%			30% OKLAHOMA SMOKE PLAIN ROUND
#15		103.00	10 MIN	550	650			-3.7%			30% HICKORY PLAIN ROUND
#16		103.00	5 MIN	550	650			-3.6%			30% MESQUITE POLY
NOTES	16	2 RUNS 103.00	10 MIN	550	650			-4.2%			30% HICKORY
#1											
#2											
#3											
#4											
#5											
#6											

Date: 2/7/97

UNITHERM Food Systems, Inc.

Cooking Trial Data

Date: 2/7/91

Test #	Belt Speed	Cook Time	Product: TURKEY BREASTS		Supplied By: PURDUE		Internal Temp. F.	R mark
			Temperatures C.		Yield			
			Zone 1	Zone 2				
#4	80.00	6 MIN	550	650		-2.0%	HEART SHAPED OVEN ROAST	
#5	90.00	5.5 MIN	550	650		-2.1%	HEART SHAPED 30% MAILLOE	
#6	103.00	5 MIN	550	650		-1.9%	HEART SHAPED 30% MAILLOE	
#7	103.00	5 MIN	550	650		-2.6%	PLAIN ROUND PACK 30% CHARCUL SELECT 24P	
#8	108.00	4.5 MIN	550	650		-2.2%	PLAIN ROUND PACK 30% CHARCUL SELECT 24P	
#9	108.00	4.5 MIN	550	650		?	HEART SHAPED 30% CHARCUL SELECT 24P	

NOTES

#4

#5

#6

#7

#8

#9

U-03964

PTO-004108

JNITHERM Food Systems, Inc.										Date: 2/7/97	
Cooking Trial Data											
Test #	Belt Speed	Cook Time	Product: TURKEY BREASTS		Start Weight	Cooked Weight	Yield	Supplied By: PURDUE	Internal Temp. F.	Remark	
			Temperatures C.								
			Zone 1	Zone 2							
#4	80.00	6 MIN	550	650			-2.0%			HEART SHAPED QUEEN ROAST	
#5	90.00	5.5 MIN	550	650			-2.1%			HEART SHAPED 30% MAILLOE	
#6	103.00	5 MIN	550	650			-1.9%			HEART SHAPED 30% MAILLOE	
#7	103.00	5 MIN	550	650			-2.6%			PLAIN ROUND PACK 30% CHARCUT SELECT 24P	
#8	108.00	4.5 MIN	550	650			-2.2%			PLAIN ROUND PACK 30% CHARCUT SELECT 24P	
#9	108.00	4.5 MIN	550	650			?			HEART SHAPED 30% CHARCUT SELECT 24P	
NOTES											
#4											
#5											
#6											
#7											
#8											
#9											

U-03965

PTO-004109

UNITHERM Food Systems, Inc.

Cooking Trial Data

Test #	Belt Speed	Cook Time	Product: TURKEY BREAST		Cooked Weight	Yield	Supplied By: PURDUE	Remarks	
			Temperatures C.						Internal Temp. F.
			Zone 1	Zone 2					
1, 2, 3	26	18 min	550	650		TOAST	3 - 1 OF EA. OVEN ROAST		
4	80	6	550	650			30% MAILLOST OVEN ROAST		
5	90	5.5	550	650			30% MAILLOST 5.5 MIN		
6	103	5	550	650			30% MAILLOST 5.5 MIN		
PACK 7	103	5	550	650			2.6% 30% SMOKE 24P		
8	GOOD	4.5 min					2.2 30% 24P		

HEART NOTES 9 GOOD

#1, 2, 3 - TOAST - (BURN TOAST)
 #4 LOOKS OK - MAYBE A BIT DARK

#5 GOOD

#6 GOOD

#7 REAL GOOD

#8 GOOD

#9 GOOD

#10 - LIGHT - OR 30% 24P 5 MIN

#11 50, 50. 45 SEC. DIP 24P

#12 30% MAILLOST

#13 30 MGS POLY

#14 30% MAILLOST 45 SEC. DIP 24P OKLA. SMOKE

#15 24P 11 24P 24P

Date: 2/7/97

Supplied By: PURDUE

U-03966

PTO-004110

#4 6 min. 2.2 loss OVER RAST

#7 ROUND
PLAIN 5m 2.6 loss 24P 30%

#5 5.5 min 2.1 loss 30 MAILOSE

#8 PLAIN
ROUND 4.5 2.2 30 24P

#10 IMPERIAL 5min 3.5 30 24P

#11 IMPERIAL 10 min 3.25 30 24P

#6 5min 1.9 30 MAILOSE

#13 PLAIN
ROUND 5min 3% 30 OKLA
SMOKO

#14 IMPERIAL 10 min 3.7 30% HICKORY

#15 PLAIN
ROUND 5 min. 3.6% 30 MES Poly

#16 PLAIN
ROUND 10 min 4.2 30% HICKORY

U-03967

PTO-004111

UNITHERM Food Systems, Inc.

Cooking Trial Data

Date: 2/7/97

Cooking Trial Data									
Test #	Belt Speed	Cook Time	Product: Turkey Breast		Start Weight	Cooked Weight	Yield	Supplied By: PORDUE	
			Temperatures C.					Internal Temp. F.	Remarks
			Zone 1	Zone 2					
ONE OF EACH	1, 2, 3	26	18 MIN	55C	65C				3 - 1 CF EA. OVER ROAST
HEART	4	80	6	55C	65C		TOAST		30% MAILLOSS OVER ROAST
HEART	5	90	5.5	55C	65C				30% MAILLOSS S.S. MIN
HEART	6	103	5	55C	65C				30% MAILLOSS S.C.
ROUND PAIN	7	103	5	55C	65C			2.6%	30% SMOKE 24P
ROUND PAIN	8	GOOD						2.2	30% 24P

HEART NOTES 9 GOOD

#1, 2, 3 - TOAST - (BURNT TOAST)
#4 LEAKS OK - WAYBE A BIT DARK

#5 GOOD

#6 GOOD

#7 REAL GOOD

#8 GOOD

#9 GOOD

#10 - LIGHT - OK 30% 24P S MIN

#11 50, 50. 45 SEC. DIP 24P

#12 30% MAILLOSS

#13 30 MGS POLY

#14 30% MAILLOSS POLY OK CA. SMOKE

U-03968

PTO-004112

10 IMPURIAL
11
12
PLAIN
PLAIN
PLAIN

UNITHERM Food Systems, Inc.

Cooking Trial Data

Date: 2/7/57

Supplied By: PURDUE

Product: Turkey Breasts

Test #	Belt Speed	Cook Time	Temperatures C.		Start Weight	Cooked Weight	Yield	Internal Temp. F.	Remarks
			Zone 1	Zone 2					
SAMPLE 1, 2, 3 OF EACH		18 min	550°	650°	45 SEC				
#4 HEART	26	6 min	550°	650°	"				3 Per. 10 F EA. OVERBAST
#5 HEART	80	5 min	"	"	"	45 SEC. SWELL MAILLOSE NICE.			NATURAL OVEN REAST
#6 HEART	90	5 min	"	"	"	45 SEC. REAL NICE.			30% MAILLOSE @ 5.5 min
#7 HEART	103	5 min	"	"	30 SEC.	"			30% MAILLOSE @ 5 min.
#8 HEART	103	5 min	550°	650°	30 SEC.	"	OK.		30% MAILLOSE @ 24 P
#9 HEART	103	5 min	"	"	30 SEC.	"	PERFECT		30% MAILLOSE @ 24 P
#10 HEART	103	5 min	"	"	30 SEC.	"	"		30% MAILLOSE @ 24 P
#11 HEART	103	5 min	"	"	30 SEC.	"	"		30% MAILLOSE @ 24 P
#12 HEART	103	5 min	"	"	30 SEC.	"	"		30% MAILLOSE @ 24 P
#13 HEART	103	5 min	"	"	30 SEC.	"	"		30% MAILLOSE @ 24 P
#14 HEART	103	5 min	"	"	30 SEC.	"	"		30% MAILLOSE @ 24 P
#15 HEART	103	5 min	"	"	30 SEC.	"	"		30% MAILLOSE @ 24 P
#16 HEART	103	5 min	"	"	30 SEC.	"	"		30% MAILLOSE @ 24 P
#17 HEART	103	5 min	"	"	30 SEC.	"	"		30% MAILLOSE @ 24 P
#18 HEART	103	5 min	"	"	30 SEC.	"	"		30% MAILLOSE @ 24 P
#19 HEART	103	5 min	"	"	30 SEC.	"	"		30% MAILLOSE @ 24 P
#20 HEART	103	5 min	"	"	30 SEC.	"	"		30% MAILLOSE @ 24 P
#21 HEART	103	5 min	"	"	30 SEC.	"	"		30% MAILLOSE @ 24 P
#22 HEART	103	5 min	"	"	30 SEC.	"	"		30% MAILLOSE @ 24 P
#23 HEART	103	5 min	"	"	30 SEC.	"	"		30% MAILLOSE @ 24 P
#24 HEART	103	5 min	"	"	30 SEC.	"	"		30% MAILLOSE @ 24 P
#25 HEART	103	5 min	"	"	30 SEC.	"	"		30% MAILLOSE @ 24 P
#26 HEART	103	5 min	"	"	30 SEC.	"	"		30% MAILLOSE @ 24 P
#27 HEART	103	5 min	"	"	30 SEC.	"	"		30% MAILLOSE @ 24 P
#28 HEART	103	5 min	"	"	30 SEC.	"	"		30% MAILLOSE @ 24 P
#29 HEART	103	5 min	"	"	30 SEC.	"	"		30% MAILLOSE @ 24 P
#30 HEART	103	5 min	"	"	30 SEC.	"	"		30% MAILLOSE @ 24 P

#12 BURNT - MUCH TOO SLOW: SPEED UP OVEN
 #14 LOOKS OK, MAYBE A BIT TOO DARK -
 #15 BETTER
 #16 GOOD
 #17 GOOD
 #18 REAL NICE!
 #19 GOOD

U-03969

NORBEST TURKEY BREAST

#1 SKINLESS IN @ 9.275 OUT @ 8.89
SET @ 35 HZ - 8 MIN. 600 - 650
SMOKE @ 30% CHARSOUL SELECT 24 P. $8.945 = 96\%$
95%

#2 SKINLESS @ 9.58 IN OUT @ 9.3
SET 56 HZ - 5 MIN 600-650 97%
30% 24P

SKIN ON IN 10.4 $9.96 = 95\%$
40 HZ - 7 MIN 600-650 9.5 OUT 90%
30% 24P

#2 SKIN ON 9.845 IN OUT 7.4 95%
40 HZ - 7 MIN 600 650
50% MAIL CASE

UNITHERM Food Systems, Inc.

Cooking Trial Data

Test #	Belt Speed	Cook Time	Product: TURKEY BREAST		Start Weight	Cooked Weight	Yield	Internal Temp. F.	Supplied By: PURDUE	Remark
			Temperatures C.							
			Zone 1	Zone 2						
1, 2, 3	26	18 min	550	650			TOAST			3 - 1 OF EA. OVER ROAST
4	80	6	550	650						30% MAILLOSE OVEN ROAST
5	90	5.5	550	650						30% MAILLOSE S-SM.
6	103	5	550	650						30% MAILLOSE S.C.
PACK 7	103	5	550	650				2.6%		30% SMOKE 24P
8	Good	4.5 min						2.2		30% 24P

HEART NOTES 9 GOOD

#1, 2, 3 - TOAST - (BURNT TOAST)
 #4 LEAKS OK - MAYBE A BIT DARK

#5 Good

#6 Good

#7 Real Good

#8 Good

#9 Good

#10 - LIGHT - OK 30% 24P S MIN

#11 50, 50. 45 SEC. DIP 24P

#12 30% MAILLOSE

#13 30 MGS POLY

#14 30% MAILLOSE 24P OKCA SMOKE

ONE OF EACH

HEART

HEART

HEART

ROUND PLAIN

PLAIN ROUND

HEART

U-03971

PTO-004115

50% IMPROVED

MIN

PLAIN

ROUND

IMPROVED

#4	6 min	2.9 loss	OUT RAST
#7	ROUND PLAIN 5m	2.6 loss	24P 30%
#5	5.5 min	2.1 loss	30 MAILOSE
#8	PLAIN ROUND 4 S	2.2	30 24P
#10	IMPERIAL 5min	3.5	30 24P
#11	IMPERIAL 10 min	3.25	30 24P
#16	5min	1.9	30 MAILOSE
#13	PLAIN ROUND 5 MIN	3%	30 OKLA smoke
#14	IMPERIAL 10 min	3.7	30% HICKORY
#15	PLAIN ROUND 5 min	3.6%	30 MES Poly
#16	PLAIN ROUND 10 min	4.2	30% HICKORY

UNITHERM Food Systems, Inc.

Cooking Trial Data

Test #	Belt Speed	Cook Time	Product: TURKEY BREASTS		Start Weight	Cooked Weight	Yield	Supplied By: PURDUE	Internal Temp. F.	R marks
			Temperatures C.							
			Zone 1	Zone 2						
#4	80.00	6 MIN	550	650			-2.0%	HEART SHAPED OVEN ROAST		
#5	90.00	5.5 MIN	550	650			-2.1%	HEART SHAPED 30% MAILLOUSE		
#6	103.00	5 MIN	550	650			-1.9%	HEART SHAPED 30% MAILLOUSE		
#7	103.00	5 MIN	550	650			-2.6%	PLAIN ROUND PACK 30% CHARSOUL SELECT 24P		
#8	108.00	4.5 MIN	550	650			-2.2%	PLAIN ROUND PACK 30% CHARSOUL SELECT 24P		
#9	108.00	4.5 MIN	550	650			?	HEART SHAPED 30% CHARSOUL SELECT 24P		

NOTES

#4
#5
#6
#7
#8
#9

UNITHERM Food Systems, Inc.

Cooking Trial Data

Test #	Belt Speed	Cook Time	Product: TURKEY BREASTS		Supplied By: PURDUE		Remarks
			Temperatures C.		Internal Temp. F.	Yield	
			Zone 1	Zone 2			
#10	103.00 2 RUNS	5 MIN	550	650			IMPERIAL PACK 30% CHARCOAL SELECT 24P IMPERIAL PACK
#11	103.00 2 RUNS	10 MIN	550	650		-3.5%	30% CHARCOAL SELECT 24P IMPERIAL
#12	103.00 2 RUNS	5 MIN	550	650		?	30% MAICOSE PLAIN ROUND
#13	103.00 2 RUNS	5 MIN	550	650		-3.0%	30% OKLAHOMA SMOKE PLAIN ROUND
#14	103.00 2 RUNS	10 MIN	550	650		-3.7%	30% HICKORY PLAIN ROUND
#15	103.00 2 RUNS	5 MIN	550	650		-3.6%	30% MESQUITE POLY
NOTES #16 2 RUNS 103.00 5 MIN 550 650 -4.2% 30% HICKORY							

#1

#2

#3

#4

#5

#6

PTO-004118

U-03974

Date: 2/7/91

UNITHERM Food Systems, Inc.										Date: 2/7/97
Cooking Trial Data										
Test #	Belt Speed	Cook Time	Product: Turkey Breast		Start Weight	Cooked Weight	Yield	Supplied Internal Temp. F.	Remarks	Supplied By: BOARS HEAD
			Temperatures C.							
			Zone 1	Zone 2						
#1	48	10 min	550	650						30% MES - Poly Exell.
#2	"	"	"	"						30% MES 100
#3										50% mes Poly
#4										mes Poly
#5										50/50% skin on
#6										EX TEST SMOKE
NOTES										
#1										
#2										
#3										
#4										
#5										
#6										

PTO-004119

U-03975

UNITHERM Food Systems, Inc.

Cooking Trial Data

Test #	Belt Speed	Cook Time	Product: TURKEY BREASTS		Start Weight	Cooked Weight	Yield	Supplied By: PURDUE	Internal Temp. F.	Remarks
			Temperatures C.							
			Zone 1	Zone 2						
#4	80.00	6 MIN	550	650			-2.0%			HEART SHAPED OVEN ROAST
#5	90.00	5.5 MIN	550	650			-2.1%			HEART SHAPED 30% MAILLOUSE
#6	103.00	5 MIN	550	650			-1.9%			HEART SHAPED 30% MAILLOUSE
#7	103.00	5 MIN	550	650			-2.6%			PLAIN ROUND PACK 30% CHARCUT SELECT 24P
#8	108.00	4.5 MIN	550	650			-2.2%			PLAIN ROUND PACK 30% CHARCUT SELECT 24P
#9	108.00	4.5 MIN	550	650			?			HEART SHAPED 30% CHARCUT SELECT 24P

NOTES

#4

#5

#6

#7

#8

#9

UNITHERM Food Systems, Inc.										Date: 2/7/97
Cooking Trial Data										
		Product: TURKEY BREASTS						Supplied By: PURDUE		
Test #	Belt Speed	Cook Time	Temperatures C.		Start Weight	Cooked Weight	Yield	Internal Temp. F.	Remarks	
			Zone 1	Zone 2						
#10	103.00	5 MIN	550	650			-3.5%		IMPERIAL PACK 30% CHARCOAL SELECT 24P	
#11	2 RUNS 103.00	10 MIN	550	650			3.25%		IMPERIAL PACK 30% CHARCOAL SELECT 24P	
#12	103.00	5 MIN	550	650			?		IMPERIAL 30% MAILLOSE PLAIN ROUND	
#13	103.00	5 MIN	550	650			-3.0%		30% OKLAHOMA SMOKE PLAIN ROUND	
#14	2 RUNS 103.00	10 MIN	550	650			-3.7%		30% HICKORY PLAIN ROUND	
#15	103.00	5 MIN	550	650			-3.6%		30% MESQUITE POLY	
NOTES 16		2 RUNS 103.00	10 MIN	550	650		-4.2%		30% HICKORY	
#1										
#2										
#3										
#4										
#5										
#6										

U-03977

PTO-004121

UNITHERM Food Systems, Inc.

Date: 2/7/97

Cooking Trial Data

Product: TURKEY BREAST				Supplied By: FURDUB					
Test #	Belt Speed	Cook Time	Temperatures C.		Start Weight	Cooked Weight	Yield	Internal Temp. F.	Remarks
			Zone 1 Zone 2						
1, 2, 3	26	18 min	550	650			TOAST		3 - 1 OF EA. OVEN ROAST
4	80	6	550	650					30% MAILLOSE OVEN ROAST
5	90	5.5	550	650					30% MAILLOSE 5.5 MIN
6	103	5	550	650					30% MAILLOSE 5.0
PACK 7	103	5	550	650				2.6%	30% SMOKE 24P
8	COOKED	4.5 min						2.2	30% 24P
9									30% 24P

NOTES
#1, 2, 3 - TOAST - (BURNT TOAST)
#4 - LAMS - OK - MAYBE A BIT DARK

PTO-004122
U-03978

#5 GOOD
#6 GOOD
#7 REAL GOOD
#8 GOOD

#9 GOOD
#10 - LIGHT - OK 30% 24P S MIN
#11 50, 50. 45 SEC. DIP 24P
#12 30% MAILLOSE
#13 30 MGS POLY
#14 30% MAILLOSE POLY OK CA. SMOKE

#4 6 min 2% loss OVEN RAST

#7 ROUND
PLAIN 5 min 2.6 loss 24P 30%

#5 5.5 min 2.1 loss 30 MAIL ROSE

#8 PLAIN
ROUND 4.5 2.2 30 24P

#10 IMPERIAL 5 min 3.5 30 24P

#11 IMPERIAL 10 min 3.25 30 24P

6 5 min 1.9 30 MAIL ROSE

13 PLAIN
ROUND 5 min 3% 30 OKLA
SMOKE

14 IMPERIAL 10 min 3.7 30% HICKORY

15 PLAIN
ROUND 5 min 3.6% 30 MES Poly

16 PLAIN
ROUND 10 min 4.2 30% HICKORY

PTO-004123

U-03979

UNITHERM Food Systems, Inc.

Cooking Trial Data

Test #	Belt Speed	Cook Time	Product: TURKEY BREASTS				Supplied By: PURDUE		Remark	
			Temperatures C.		Start Weight	Cooked Weight	Yield	Internal Temp. F.		
			Zone 1	Zone 2						
#10	103.00 2 RUNS	5 MIN	550	650				-3.5%	IMPERIAL PACK 30% CHARSEL SELECT 24P IMPERIAL PACK	
#11	103.00 2 RUNS	10 MIN	550	650				3.25%	30% CHARSEL SELECT 24P IMPERIAL	
#12	103.00	5 MIN	550	650				?	30% MAIOSE! PLAIN ROUND	
#13	103.00 2 RUNS	5 MIN	550	650				-3.0%	30% OKLAHOMA SMOKE PLAIN ROUND	
#14	103.00	10 MIN	550	650				-3.7%	30% HICKORY PLAIN ROUND	
#15	103.00	5 MIN	550	650				-3.6%	30% MESQUITE PULY	
NOTES 16 2 RUNS 103.00 10 MIN 550 650									-4.2%	30% HICKORY

#1

#2

#3

#4

#5

#6

Cooking Trial Data

Date:

2/12/00

NOTES ALL SMOKE APPLIED @ 30% 24 P SPRAYED LIGHTLY FOR 60 SEC.

#1 TWO WING TEST, COMBINED START? COOK WEIGHT AS ABOVE
WINGS LOOK GREAT, BUT COULD STAND LESS TIME

#2 TWO DRUM TEST, COMBINED START 1 COOK WEIGHT AS ABOVE COOKED FOR 43 MIN. THEN APP. SMOKE
THEN SET SMOKE FOR 27 MIN.

DRUMS MAY REQUIRE LONGER REHEAT COOK BEFORE SMOKE APP. 80 MIN SET.
#3 4 HOCK TEST COOKED FOR 24 MIN. @ 250°. THEN APPLY SMOKE FOR 60 SEC.
FINISH FOR 24 MIN @ 250°.


2 RIBLET TEST. COOK FOR 24 MIN. @ 250° THEN APPLY SMOKE. FINISH IN RATTU
#4 FLOW OVER - 4 MIN @ 425°. BELT @ 30 HZ, FANS @ 40 HZ.

54

3

MEMORANDUM

TO: Bob Wood
Vernie Klasen
Denis Anderson
Randy Alsleben
Brett Sims

FROM: Jeff Dierenfeld 

DATE: February 14, 1997

RE: Unitherm Visit and Progress Report

OPERATION OF THE SYSTEM

The bowl breasts will be removed from the rack manually and placed on the slitting conveyor (Some slight modifications will be made to the knife configuration to ease removal of the bag). The bowl breast travels down the conveyor and is stopped by a swing arm with an air needle. The bag is actually inflated like a balloon (the amount of inflation is determined by a timer). The inflation process does an excellent job of separating the cling film from the product. The breast then travels across a slitteer which opens the bag. The product can then be easily removed from the bag manually.

The stripped units will then be netted manually and placed on the system conveyor. The first step is a smoke spray or atomization. From there, the breasts continue along the conveyor into the oven cabinet. Temperatures are set around 600 degrees. During the 9 MINUTE smoke cycle, the breasts travel through 3 zones, achieving a 97% cook yield.

From there, the breasts are conveyed into a chill cabinet for a 15-20 minute chill back down to <40 degrees and are conveyed directly to the 8600 pack line.

TEST RESULTS

The 12 units that we tested while I was at the Unitherm facility show that this system has excellent potential for greatly improving the efficiency of our process. We tested several smoke concentrations, application procedures, and oven dwell times, so the test units range from the light end of the spec to the dark. Once we determine the correct process for our product, I believe we will have great consistency.

FOLLOW UP

I will continue to work with Unitherm on layouts for our facility and the exact capacities and system modifications that will make it best for us. I am recommending that we continue to work with Unitherm and ultimately purchase their in-line cooking system. I will be following up with costs, and other information as it becomes available to me.

c Jeff Shodean
Scott Anspach

Lola minke
Kyle Setrum

Confidential
Restricted Access
U-06859

PTO-004126

UNITHERM Food Systems, Inc.										Date: 2/18/97			
Cooking Trial Data													
Test #	Belt Speed	Cook Time	Product: Honey Cured Ham		Temperatures C.	Zone 1	Zone 2	Start Weight	Cooked Weight	Yield	Supplied By: CONT. IRL - Wilson	Internal Temp. F.	Remarks
32% Run #1	34.00	14 MIN	600F	650F	u	u	u	u	u	u	50%	50% CHARCOAL SELET 241	
32% Run #2	40.00	12 MIN	u	u	u	u	u	u	u	u	30%	u	
38% #3	48.00	10 MIN	u	u	u	u	u	u	u	u	22%	CLOSE COLOR	
38% Run #4	49.75	9 MIN	u	u	u	u	u	u	u	u	22%		
38% #5	53.50	8.5	u	u	u	u	u	u	u	u	22%		
#6													
NOTES													
#1	Too Dark												
#2	Still Too Dark												
#3	CLOSE												
#4	OK												
#5	OK												
#6													

ROCCO

NATURAL BROWN
SKIN ON
TURKEY BREAST

	BELT SPEED	DWELL TIME	ZONE 1	ZONE 2
#1	28. HZ	10 MIN.	515	525
#2	25 HZ	11 MIN.	515	525
#3	23. HZ	12 MIN.	500	500
#4	21.5 HZ	13 MIN.	500	500
#5	28 HZ.	10 MIN	525	550
#6				

U-04003

PTO-004128

UNITHERM Food Systems, Inc.										Date: 2/19
Cooking Trial Data					Product: <u>VALLEY BREAST</u>					Supplied By: <u>RAEFORD</u>
Test #	Belt Speed	Cook Time	Temperatures C.		Start Weight	Cooked Weight	Yield	Internal Temp. F.	Remarks	
			Zone 1	Zone 2						
#1	15:00	19 min	425	500					STEAM ZONE 1+2 TOO LIGHT	
#2	15:00	19 min	450	525					STEAM ZONE 1+2	
#3	15:00	19 min	550	625					STEAM ON 1+2	
#4	22:00	13 min	550	625					KIND OF BURST MORE STEAM	
#5	25:00	11 min	550	625						
#6	23:00	12 min	500	600					STILL TOO LIGHT	
NOTES										
#1	SKINLESS 600 GR									
#2	SKINLESS 500 LIGHT, SKIN ON NOT BAD BUT OVER									
#17	22:00 13 min 500 600 STEAM									
#18	20:00 14 min 500 600 STEAM									
#5										
#6										

U-04004

PTO-004129

F. D. Dryden

Hormel Foods Research Report

Attention: W. Dion - CO M. Slette - CO

Project Name: Fast & Easy Sausage Browning Tests

Copy List:

M. Benson - R&D D. White - OKC
T. Hadden - OKC R. Albers - OKC

Written By: S. Hoevet - 5822 J. Ulrich - 5810

Objective:

Evaluate browning tests on Fast & Easy FC504 Sausage

Summary:

A cutting was held at R&D on February 18, 1997. Those attending were W. Dion, M. Slette, J. Ulrich and S. Hoevet.

Product Shown and Comments:

1. Fast & Easy Control with Caramel Color
2. Fast & Easy all Dextrose with no Caramel Color:
flavor unacceptable
not as spicy
color not improved
3. Fast & Easy with Maltose added:
flavor not acceptable
color too dark
4. Fast & Easy Control, no caramel color, pre-fried / impingement oven
flavor not acceptable
oily taste

Recommendation:

No change in formulation or procedure.

Next Steps:

1. Heat & Control to visit OKC to fine tune impingement oven for yields
2. Heat & Control will attempt to improve color without caramel color
3. OKC, Operations, R&D will evaluate searing unit from Heat & Control for color and yield

Anything we do in the future to change the color must not compromise the present flavor or costs.

pjh (11708)

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U-06864**

PTO-004130

FS155.00
February 3, 1997

**FAST & EASY PORK SAUSAGE
NATURAL SPICE
WITH RED ARROW MALLIOSE**

FORMULATION

Pork 40% \pm 1% Fat	93.19%
Water	3.00%
Encapsulated Salt	0.60%
Spice	2.21%
Red Arrow Malliose (dry)	1.00%

SPICE

Core Salt TBHQ	0.13%
Regular Salt	0.60%
Sugar	0.50%
Ground Sage	0.30%
Black Pepper 10/20	0.33%
Crushed Red Pepper	0.07%
Herbalox, Type O	0.06%
Firminich 862.192 Lemon	0.10%
Spectra 88	0.12%

PROCEDURE

1. Pre-break Regular Pork and 72% Lean Pork 1" and analray separately. Calculate meat mix for 40% \pm 1% Fat.
2. Add meat to Mixer and recheck fat. The mixer must be set at slow speed and only intermittently to allow addition of meat. Do not run mixer continuously when adding meat.
3. Add water and spice and Malliose. Mix for 3 minutes with nitrogen.
4. Add salt and mix 2 minutes with nitrogen.
5. Final grind 5/32" into V-Mag container.
6. Form on Formax Plate #7795 with tenderformer.
7. Immediately cook on impingement oven to 160°F. Internal.
8. After cooling, IQF and layer pack in 10 lb. Food Service box with inter leaf sheets and poly liners.
9. Hold at -20°F. until use.

pjh (11547)

PTO-004131

**Confidential
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U-06865**

FS155.00
February 3, 1997

**FAST & EASY PORK SAUSAGE
NATURAL SPICE
ALL DEXTROSE**

FORMULATION

Pork 40% \pm 1% Fat	93.87%
Water	3.00%
Encapsulated Salt	0.60%
Spice	2.53%

SPICE

Core Salt TBHQ	0.13%
Regular Salt	0.60%
Dextrose	0.70%
Ground Sage	0.30%
Black Pepper 10/20	0.33%
Crushed Red Pepper	0.07%
Herbalox, Type O	0.06%
Firminich 862.192 Lemon	0.10%
Spectra 88	0.12%
GB Grill Flavor	0.12%

PROCEDURE

1. Pre-break Regular Pork and 72% Lean Pork 1" and analyze separately. Calculate meat mix for 40% \pm 1% Fat.
2. Add meat to Mixer and recheck fat. The mixer must be set at slow speed and only intermittently to allow addition of meat. Do not run mixer continuously when adding meat.
3. Add water and spice. Mix for 3 minutes with nitrogen.
4. Add salt and mix 2 minutes with nitrogen.
5. Final grind 5/32" into V-Mag container.
6. Form on Formax Plate #7795 with tenderformer.
7. Immediately cook on impingement oven to 160°F. Internal.
8. After cooling, IQF and layer pack in 10 lb. Food Service box with inter leaf sheets and poly liners.
9. Hold at -20°F. until use.

pjh (11549)

PTO-004132

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U-06866**

CFO Dubugue 40% Fat Skinless Link

Oven temp 570°

speed 3.1 400 lbs Front only
yield about 76%

Cook line / Impingement

Dubugue 40% Fat 2oz Putty

Deep Fryer

Time 55 output 42%

temp 380

Impingement Oven

Mass 1. Height 2.00

Fan	75%	75%
temp	325°	325°
Humidity	85%	45%
Fan	70%	70%

Dwell 0.60

CFO Dubugue Skin on link
26% Fat and 40% Fat

Oven temp 392° F

speed 4.75

Steam 400 lb 10wtr

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U-06867

PTO-004133